

K\laccourciere

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10-22-01

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/630,846

DATE: 10/17/2001  
TIME: 15:48:38

Input Set : A:\RpI260.app  
Output Set: N:\CRF3\10172001\I630846.raw

3 <110> APPLICANT: Thompson, James D.  
 5 <120> TITLE OF INVENTION: IMPROVED POLYMERASE III-BASED EXPRESSION OF THERAPEUTIC  
 6 RNAs  
 8 <130> FILE REFERENCE: MBHB00-919-D  
 10 <140> CURRENT APPLICATION NUMBER: 09/630,846  
 11 <141> CURRENT FILING DATE: 2000-08-02  
 13 <150> PRIOR APPLICATION NUMBER: 08/512,861  
 14 <151> PRIOR FILING DATE: 1995-08-07  
 16 <150> PRIOR APPLICATION NUMBER: 08/293,520  
 17 <151> PRIOR FILING DATE: 1994-08-19  
 19 <150> PRIOR APPLICATION NUMBER: 08/337,608  
 20 <151> PRIOR FILING DATE: 1994-11-10  
 22 <160> NUMBER OF SEQ ID NOS: 22  
 24 <170> SOFTWARE: PatentIn Ver. 2.0  
 26 <210> SEQ ID NO: 1  
 27 <211> LENGTH: 88  
 28 <212> TYPE: RNA  
 29 <213> ORGANISM: Homo sapiens  
 31 <220> FEATURE:  
 32 <221> NAME/KEY: misc\_feature  
 33 <222> LOCATION: (83)  
 34 <223> OTHER INFORMATION: n represents ribothymidine.  
 36 <220> FEATURE:  
 37 <221> NAME/KEY: misc\_feature  
 38 <222> LOCATION: (86)..(88)  
 39 <223> OTHER INFORMATION: all n's represent ribothymidine.  
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 42 ggcagaacag cagaguggcg cagcggaaagc gugcugggcc cauaacccag agguucgaagg 60  
 W--> 43 aucgaaacca uccucugcua ggnccnnn 88  
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 46 <211> LENGTH: 70  
 47 <212> TYPE: RNA  
 48 <213> ORGANISM: Artificial Sequence  
 50 <220> FEATURE:  
 51 <223> OTHER INFORMATION: Description of Artificial Sequence: a truncated  
 52 version of tRNA.  
 54 <400> SEQUENCE: 2  
 55 ggcagaacca gcagaguggc gcagcggaaag cgugcugggc ccauaaccca gagguucgaug 60  
 56 gaucgaaacc 70  
 58 <210> SEQ ID NO: 3  
 59 <211> LENGTH: 108  
 60 <212> TYPE: RNA  
 61 <213> ORGANISM: Artificial Sequence  
 63 <220> FEATURE:  
 64 <223> OTHER INFORMATION: Description of Artificial Sequence: S35 tRNA  
 65 Chimera (S35).  
 67 <400> SEQUENCE: 3

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68 ggcagaacag cagaguggcg cagcggaaagc gugcuggggcc cauaacccag agguucgaugg 60  
69 aucgaaaccc cggaucguac cgcggggauc cacucugcug uucuguuu 108  
71 <210> SEQ ID NO: 4  
72 <211> LENGTH: 146  
73 <212> TYPE: RNA  
74 <213> ORGANISM: Artificial Sequence  
76 <220> FEATURE:  
77 <223> OTHER INFORMATION: Description of Artificial Sequence: S35 Ribozyme  
78 Chimera (HHIS35).  
80 <400> SEQUENCE: 4  
81 ggcagaacag cagaguggcg cagcggaaagc gugcuggggcc cauaacccag agguucgaugg 60  
82 aucgaaaccc cggaucguac cgcgccacaa cacugaugag gaccgaaagg uccgaaacgg 120  
83 gcaggaucca cucugcuguu cuguuu 146  
85 <210> SEQ ID NO: 5  
86 <211> LENGTH: 133  
87 <212> TYPE: RNA  
88 <213> ORGANISM: Artificial Sequence  
90 <220> FEATURE:  
91 <223> OTHER INFORMATION: Description of Artificial Sequence: S35 Plus tRNA  
92 Chimera (S35 Plus).  
94 <400> SEQUENCE: 5  
95 ggcagaacag cagaguggcg cagcggaaagc gugcuggggcc cauaacccag agguucgaugg 60  
96 aucgaaaccc cggaucguac cgcggggauc cuaacgaucc ggggugucga uccaucacuc 120  
97 ugcuguucug uuu 133  
99 <210> SEQ ID NO: 6  
100 <211> LENGTH: 171  
101 <212> TYPE: RNA  
102 <213> ORGANISM: Artificial Sequence  
104 <220> FEATURE:  
105 <223> OTHER INFORMATION: Description of Artificial Sequence: S35 Plus  
106 Ribozyme Chimera (HHIS35 Plus).  
108 <400> SEQUENCE: 6  
109 ggcagaacag cagaguggcg cagcggaaagc gugcuggggcc cauaacccag agguucgaugg 60  
110 aucgaaaccc cggaucguac cgcgccacaa cacugaugag gaccgaaagg uccgaaacgg 120  
111 gcaggaucca aacgauccgg ggugucgauc caucacucug cuguucuguu u 171  
113 <210> SEQ ID NO: 7  
114 <211> LENGTH: 11  
115 <212> TYPE: RNA  
116 <213> ORGANISM: Artificial Sequence  
118 <220> FEATURE:  
119 <223> OTHER INFORMATION: Description of Artificial Sequence: A BOX  
120 consensus sequence.  
122 <220> FEATURE:  
123 <221> NAME/KEY: misc\_feature  
124 <222> LOCATION: (5)..(6)  
125 <223> OTHER INFORMATION: each n represents any one of a, c, g, or u.  
127 <400> SEQUENCE: 7  
W--> 128 urgcnagyg g 11  
130 <210> SEQ ID NO: 8

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131 <211> LENGTH: 11
132 <212> TYPE: RNA
133 <213> ORGANISM: Artificial Sequence
135 <220> FEATURE:
136 <223> OTHER INFORMATION: Description of Artificial Sequence: B BOX
137 consensus sequence.
139 <220> FEATURE:
140 <221> NAME/KEY: misc_feature
141 <222> LOCATION: (8)
142 <223> OTHER INFORMATION: n represents any one of a, c, g, or u.
144 <400> SEQUENCE: 8
W--> 145 gguucganuc c 11
147 <210> SEQ ID NO: 9
148 <211> LENGTH: 129
149 <212> TYPE: RNA
150 <213> ORGANISM: Artificial Sequence
152 <220> FEATURE:
153 <223> OTHER INFORMATION: Description of Artificial Sequence: 5T tRNA
154 Chimera (5T).
156 <400> SEQUENCE: 9
157 ggcagaacag cagaguggcg cagcggaaagc gugcugggcc cauaaccagg aggucgaugg 60
158 aucgaaacca uccucugcug uucugccgcg gcgaaagccg caaacacacaca aaaaccccca 120
159 aaccccuuu 129
161 <210> SEQ ID NO: 10
162 <211> LENGTH: 167
163 <212> TYPE: RNA
164 <213> ORGANISM: Artificial Sequence
166 <220> FEATURE:
167 <223> OTHER INFORMATION: Description of Artificial Sequence: 5T Ribozyme
168 Chimera (HHI5T).
170 <400> SEQUENCE: 10
171 ggcagaacag cagaguggcg cagcggaaagc gugcugggcc cauaaccagg aggucgaugg 60
172 aucgaaacca uccucugcug uucugccgcg gcgaaagccg caaacacacac acugaugagg 120
173 accgaaaggu ccgaaaacggg cacacacaaa aacggcgaaa gccguuu 167
175 <210> SEQ ID NO: 11
176 <211> LENGTH: 112
177 <212> TYPE: RNA
178 <213> ORGANISM: Artificial Sequence
180 <220> FEATURE:
181 <223> OTHER INFORMATION: Description of Artificial Sequence: TRZ-A tRNA
182 Chimera.
184 <400> SEQUENCE: 11
185 ggcagaacag ucgaguggcg cagcggaaagc gugcugggcc cauaaccagg aggucgaugg 60
186 aucgaacacu gcgccacucc ugaugagccg caaaggcgau acuguucugu uu 112
188 <210> SEQ ID NO: 12
189 <211> LENGTH: 112
190 <212> TYPE: RNA
191 <213> ORGANISM: Artificial Sequence
193 <220> FEATURE:

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194 <223> OTHER INFORMATION: Description of Artificial Sequence: TRZ-B tRNA  
195 Chimera.  
197 <400> SEQUENCE: 12  
198 ggcagaacag ucgaguggcg cagcggaaagc gugcuggggcc caraaccagg aggucgaugg 60  
199 aucgaacacu gcgccacuca aaaaaagccg caaaggcgau acuguucugu uu 112  
201 <210> SEQ ID NO: 13  
202 <211> LENGTH: 148  
203 <212> TYPE: RNA  
204 <213> ORGANISM: Artificial Sequence  
206 <220> FEATURE:  
207 <223> OTHER INFORMATION: Description of Artificial Sequence: HHITRZ-A  
208 Ribozyme Chimera.  
210 <400> SEQUENCE: 13  
211 ggcagaacag ucgaguggcg cagcggaaagc gugcuggggcc cauaaccagg aggucgaugg 60  
212 aucgaacacu gcgccacucc ugaugagccg cacacaacac ugaugagccg aaaggcgaaa 120  
213 cgggcacaca ggcgauacug uucuguuu 148  
215 <210> SEQ ID NO: 14  
216 <211> LENGTH: 169  
217 <212> TYPE: RNA  
218 <213> ORGANISM: Artificial Sequence  
220 <220> FEATURE:  
221 <223> OTHER INFORMATION: Description of Artificial Sequence: HPITRZ-A  
222 Ribozyme Chimera.  
224 <400> SEQUENCE: 14  
225 ggcagaacag ucgaguggcg cagcggaaagc gugcuggggc ccauaaccca gaggucgaug 60  
226 gaucgaacac ugcgcacuc cugaugagcc gcacacaaca agaaggcaca accagagaaa 120  
227 cacaggcgaa agccugguac auuaccuggu aggcgauacu guucuguuu 169  
229 <210> SEQ ID NO: 15  
230 <211> LENGTH: 64  
231 <212> TYPE: RNA  
232 <213> ORGANISM: Artificial Sequence  
234 <220> FEATURE:  
235 <223> OTHER INFORMATION: Description of Artificial Sequence: a U6-S35  
236 chimera.  
238 <220> FEATURE:  
239 <221> NAME/KEY: unsure  
240 <222> LOCATION: (1)..(64)  
241 <223> OTHER INFORMATION: all n's represent ribothymidine.  
243 <400> SEQUENCE: 15  
W--> 244 gggcacncga anncaagcac aaacaaaaan aaaccaccaa acaaagcnng agnnncgagng 60  
W--> 245 nnnn 64  
247 <210> SEQ ID NO: 16  
248 <211> LENGTH: 104  
249 <212> TYPE: RNA  
250 <213> ORGANISM: Artificial Sequence  
252 <220> FEATURE:  
253 <223> OTHER INFORMATION: Description of Artificial Sequence: a U6-S35  
254 ribozyme chimera containing a hammerhead ribozyme  
255 targeted to site I (HHI).

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Input Set : A:\Rpi260.app  
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257 <220> FEATURE:  
258 <221> NAME/KEY: unsure  
259 <222> LOCATION: (1)..(104)  
260 <223> OTHER INFORMATION: all n's represent ribothymidine.  
262 <400> SEQUENCE: 16  
W--> 263 gggcacnca anncaagcac aaacaaaaaaaa cacaacacng angagccgaa aggcgaaacg 60  
W--> 264 ggcacacana aaaccaccaa acaaagcnng agnnncgagng nnnn 104  
266 <210> SEQ ID NO: 17  
267 <211> LENGTH: 102  
268 <212> TYPE: RNA  
269 <213> ORGANISM: Artificial Sequence  
271 <220> FEATURE:  
272 <223> OTHER INFORMATION: Description of Artificial Sequence: a  
273 U6-S35-ribozyme chimera containing a hammerhead  
274 ribozyme targeted to site II (HHII).  
276 <400> SEQUENCE: 17  
277 gggcacucga auucaagcac aaacacaaca auuucuuccu gaugagccga aaggcgaaaa 60  
278 aaccgaacca cacaacaaac aaagcuugag uucgaguguu uu 102  
280 <210> SEQ ID NO: 18  
281 <211> LENGTH: 161  
282 <212> TYPE: RNA  
283 <213> ORGANISM: Adenovirus VA1 RNA.  
285 <400> SEQUENCE: 18  
286 uuuccccgggc acucuuccgu ggucuggugg auaauaucgc aaggguauca uggcggacga 60  
287 ccgggguuucg aaccccccggau cccggccgcuc cgccgugauc caugcgguaa ccgccccgcu 120  
288 gucgaaccca ggugugcgcac gucagacaac gggggagcgc u 161  
290 <210> SEQ ID NO: 19  
291 <211> LENGTH: 175  
292 <212> TYPE: RNA  
293 <213> ORGANISM: Artificial Sequence  
295 <220> FEATURE:  
296 <223> OTHER INFORMATION: Description of Artificial Sequence: VA1-S35  
297 Chimera.  
299 <400> SEQUENCE: 19  
300 gggcacucuu ccgugguguc guagauaaaau ucgcaagggu aucauggcgg acgaccgggg 60  
301 uucgaacccc ggaucgggcc guccgcccug auccaugcgg uuaccgcgaa uucaagcga 120  
302 agcuugauu cgcgguaacc caggugugcgc agcucagaca acgggggagagu guuuu 175  
304 <210> SEQ ID NO: 20  
305 <211> LENGTH: 72  
306 <212> TYPE: RNA  
307 <213> ORGANISM: Artificial Sequence  
309 <220> FEATURE:  
310 <223> OTHER INFORMATION: Description of Artificial Sequence: VA1 Chimera.  
312 <400> SEQUENCE: 20  
313 gggcaccucu uccguggucu gguagauuaa auucgcaagg guaucauggc ggacgaccgg 60  
314 gguucgaacc cc 72  
316 <210> SEQ ID NO: 21  
317 <211> LENGTH: 26  
318 <212> TYPE: DNA

**VERIFICATION SUMMARY**

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Input Set : A:\Rpi260.app  
Output Set: N:\CRF3\10172001\I630846.raw

L:43 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:128 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:145 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:244 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15  
L:245 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15  
L:263 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16  
L:264 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16